

Council for Endangered Species Act Reliability

March 11, 2011

CESAR

VIA EMAIL

Delta Stewardship Council 980 Ninth Street, Suite 1500 Sacramento, CA 95814

Sent via E-mail: deltaplancomments@deltacouncil.ca.gov

Re: Comments of The Council for Endangered Species Act Reliability on the Delta Stewardship Council First Draft Delta Plan Basis of Findings

Dear Chairman Isenberg and Members of the Council:

The Council For Endangered Species Act Reliability ("CESAR") is a California nonprofit, public interest organization whose mission is to bring scientific rigor to regulatory decisions undertaken pursuant to environmental statutes, particularly the Endangered Species Acts (federal "ESA",16 U.S.C.§§ 1531, et seq.; and California Endangered Species Act ("CESA"), codified at Fish and Game Code, §§ 2050, et seq.), to ensure consistent application of these statutes throughout all industries and all sectors, to fulfill the educational goals of its members, and to provide educational information on the federal and state endangered species statutes and their application to the general public in the process. CESAR has an interest in calling attention to statements in government documents designed to implement environmental statutes that are inadequately supported, unclear, and incomplete. Regulatory decisions which do not have a rigorously analyzed factual basis fail to meet the standards of federal law and result in costly and ineffective regulation which can, at the worst, cause catastrophic social and economic dislocation and exacerbate existing environmental problems.

A document such as the Delta Plan, even in draft, contains multiple individual opportunities for error and lack of transparency. CESAR is confining its comments to

significant underlying issues regarding the basis for the 4 chapters included in the first draft Delta Plan. Failure to address these issues explicitly will result in a document which is incapable of supporting a Delta management plan robust enough to withstand the scientific, policy and legal challenges it will face.

General Comments on the Draft Delta Plan

For 150 years, the Delta has been subjected to increasing degrees of management and is now a wholly managed ecosystem. Any management action will have positive and negative consequences for each component of the system. Each of those consequences will have social, economic and legal effects as well as environmental effects. Necessarily, any management structure must make these tradeoffs both implicitly and explicitly. In the context of defensibility under the various environmental statutes protecting the Delta, such as the California Environmental Quality Act ("CEQA"), the National Environmental Policy Act ("NEPA"), the ESA, and the CESA, the actions must be legally defensible. In order to be legally defensible, the actions must have a context which explicitly considers the tradeoffs among species, water users, and the Delta's ecological health as a whole. Failure to identify this framework and provide an explicit balancing structure will only produce an exercise which results in a continued process of piecemeal litigation by special interests using specific statutes to achieve goals which may or may not be consistent with the health of the Delta.

Accordingly, CESAR identifies the following general problems with the first draft Delta Plan:

1. While the document references 'degradation' of the Delta and various components of the Delta ecosystem, it fails to identify a target baseline from which degradation is measured, and to which any management scheme must aspire to restore.

For example, does the Draft Plan view the pre-European settlement ecosystem to be the baseline from which all degradation is measured? If so, does the Delta Plan contemplate accepting natural inflows and outflows with the more extreme periodic flooding of the City of Sacramento and extreme salinity increases during low flow periods? This approach would have the scientific validity of a wholly 'natural' ecosystem and would leave little opportunity for litigation over regulatory decisions. However, there would be significant economic and social reallocations of wealth and power within the state under such a structure.

If some intermediate management structure is used, then any decision must have an explicit context and rationale for the decision, complete with a designation of priorities for protection. Failure to include such a context and

- rationale leaves the plan vulnerable to the perception that the decision was arbitrary and lacked any rational basis.
- 2. If the Delta Stewardship Council ("Council") prefers an intermediate management scheme whereby existing dams and their flood control functions remain, as well as the existing levee system, then management decisions and the basis for those decisions must be explicit.
 - i. Whatever the final recommended physical management structure, the Delta Plan must define the 'healthy' ecosystem that the management scheme will support. Failure to explicitly define the parameters of a healthy Delta ecosystem will merely result in further litigation and wasted expenditures as whim rather than an explicit plan will govern management decisions.
 - ii. Whatever the final recommendation for the parameters of a 'healthy' Delta ecosystem, they must be explicit and quantitative, based on data, include scientifically based analysis, and provide for adjustments based on a recognized and explicit set of priorities.

 Failure to provide a clear and specific basis for decision-making will result in failure of the Delta Plan.
 - iii. There are numerous competing demands within the Delta ecosystem. The Delta Plan must provide a clear statement of priorities for the beneficial uses being protected by its management decisions. These priorities must be grounded in clear, rigorous factual details and transparent scientific analysis. This is particularly important where competing demands of species protected under the ESA may indicate contradictory actions. Failure to do so will result in serial litigation as individuals dissatisfied with management decisions fight for control through the courts.

For example, how are management decisions made that have competing adverse and positive effects on two separate but protected species? Which species wins and which loses; and what is the basis for the decision?

Another example; how will management decisions related to water use be made if water could be consumptively used to benefit a protected species, but with the consequence of failure to meet water quality standards for human consumption late in the year; what are the decision parameters?

iv. The Delta Plan will be adopted at a point in time with imperfect information. The process will be public and the Plan public. However, as more information becomes available, decision processes will be refined

and priorities made clearer. The Delta Plan must have a public process for this refining and reprioritizing, and set up a basis and standards with a public process for making any changes.

- 3. The management of the Delta occurs in a context governed completely by environmental statutes and their implementing regulations, the most powerful being the federal ESA. The ESA operates on a species by species basis and provides no authority for making decisions based on the health of the ecosystem in its entirety. As a result, a new species listing, a citizen suit, or simply a change in local environmental conditions (say a drought) can result in a court suspending all activities under the Delta Plan. The Delta Plan must explicitly address the issue of ESA single species protection in the context of greater ecosystem health. Failure to do so dooms the planning exercise to failure.
- 4. The proposed management of the Delta will necessarily have significant effects on agricultural water users as well as other economic sectors that rely on beneficial uses of water for economic activities. These economic activities have a ripple effect throughout the state, significantly affecting socio-economic conditions. The final plan must explicitly acknowledge when the costs of management priorities which provide statewide public trust benefits, such as environmental benefits, are borne by a specific sector of the more general public and the magnitude of those costs. It also must acknowledge that the State of California, representing the general public, bears the responsibility for compensating those individuals who bear a disproportionate cost of any public trust benefits generated by the plan's priorities.
- 5. The U.S. Fish and Wildlife Service ("FWS") has been found by a U.S. District Court to have acted arbitrarily and capriciously in its preparation of the most recent biological opinion for the Delta smelt. We urge the Council to eschew the temptation to reuse the incomplete, inaccurate, and biased science which forms the basis for that biological opinion and instead look beyond the same stale voices to a more balanced, complete, clear, transparent and accurate assessment of the existing science.
 - We urge the Council to use the best scientific and commercial data available as it is defined in the Office of Management and Budget ("OMB") guidelines issued at the direction of Congress to ensure that the plan is based on data, and is transparent, clear, complete, and accurate. The same errors which the court found in the delta smelt biological opinion should not be repeated in the Delta Plan.

- We urge the Council to insist on truly independent review of the science used to support the plan. Specifically, we refer the Council to the OMB Peer Review Memorandum.
- We urge the Council to avoid the use of peer reviewers who are authors of research used to justify the plan, or of peer reviewers who have received funding from agencies preparing the plan, or of peer reviewers who have taken public positions on issues related to the Delta. The lack of independence in the science community working on Delta issues was first identified in 2005, and those failings have not been rectified to date.
- 6. While the Delta is the focus of the Plan, the adoption of any of the Council's recommendations will have statewide social and economic consequences. Therefore, the Plan must include explicit weighing of the alternatives in a statewide context which acknowledges the changes that will occur as a consequence of the Council's management decisions.
- 7. The Plan must prioritize science sources based on scientific credibility. In 2001, Congress adopted section 515 of the Treasury and General Government Appropriations Act for the Fiscal Year which resulted in the OMB issuing government-wide guidelines that "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies. This law is generally known as the Information Quality Act and the resulting guidance provides clear direction for developing the best scientific information available. The guidelines published by the OMB were subject to public review, comment and revision, and have the authority of regulations. The guidelines require federal agencies to ensure that information used by those agencies is clear, complete, accurate, and unbiased. In addition, the guidelines require agencies to ensure that all scientific assessments are transparent by requiring that scientific assessments be substantially reproducible by a qualified member of the public.

The OMB guidelines effectively define the best scientific and commercial information available. The OMB guidelines and the degree to which science sources adhere to their requirements provide a publicly acknowledged basis for assigning scientific credibility. Accordingly, since much of the final Delta Plan will be subject to the strictures of various federal laws, not the least of which are NEPA, ESA and the Clean Water Act, these guidelines must form the basis for assigning scientific credibility.

Chapter 5 Comments

Draft finding: California's total water supply is finite.

This statement is inaccurate as it stands. California's water supply is not finite. There are many ways in which it can be increased, the most obvious being through construction of dams or purchases of water from other sources. If the finding is to be accurate, it must be qualified to acknowledge the implicit assumptions included in the statement.

> Draft Finding: California's water infrastructure is increasingly vulnerable to external factors such as climate change.

This statement is unclear and misleading. How is California's infrastructure more vulnerable today than in the past? No evidence is produced to substantiate the claim that climate change is more or less significant than in the past. In fact, page 5-1 of the Draft Delta Plan makes the statement that "...the total amount of precipitation has been constant for more than 100 years". No information is provided to substantiate the existence of other physical or geographical factors that increase the vulnerability of the infrastructure. The finding is too vague and there is no supporting information to justify its inclusion.

Draft Finding: The Constitution of California requires that water be used for beneficial purposes, that water be used reasonably, and that no wasting of water shall occur.

The finding is incomplete in that it fails to acknowledge that the California Constitution prohibits unreasonable use or diversion of water. This is an important prohibition as it addresses the balancing of the uses of water. A particular use may be considered reasonable in the absence of context, but when considered in the context of foregone uses, the use may be unreasonable. The finding must include this important prohibition against unreasonable use.

> Draft Finding: California's water supply is provided by local, regional, state, and federal dams, reservoirs and conveyance systems. However, improved regional water supply self-reliance is one of the major ways we can meet our coequal goals over the coming decades.

We do not dispute the need for development of more local water supplies. However, the Draft Delta Plan itself makes two seemingly inconsistent statements. The first finding states that California's water supply is finite, and the discussion

proceeds to point out that less than 60% of the water occurs where over 96% of the population resides. In order for the finding to be accurate it must assume that major population relocations will occur, since finite supplies cannot be expanded and there is a major discrepancy between population and supply. Does the Council envision Southern California populations migrating to the northern portions of the state? Does the Council envision abandoning agriculture in the Central Valley? Does this finding imply that San Francisco will have to forego water piped in from Hetch-Hetchy Reservoir in favor of tapping a local supply?

The finding is misleading and inconsistent with earlier statements in the Draft Delta Plan and must be revised and clarified.

➤ Draft Finding: Urban residential water use has not declined for the past 40 years. Agricultural water use has continued to be at the same statewide level of approximately 31-361 MAF per year for many years. What remains of the available water supply is often called environmental water. With population growth and little change in water efficiency, California's demands will continue to increase.

This finding is inconsistent and unclear. The finding makes statements regarding urban residential use over the past 40 years, but fails to provide a similar measure for agricultural use. There is no context for these use figures. Is urban use constant in the face of growing populations? As for agricultural use, what is the context for changes in the agricultural use "over the past 40 years", if indeed that is the proper metric? The phrase "for many years" is unenlightening. There is no information on the amount of environmental water use nor is there any context provided for the statement addressing environmental water. Finally, the finding fails to mention non-residential, non-agricultural industrial uses.

If California's water supply is finite, then agricultural, urban, and environmental water should sum to the total. Any changes in use by one sector is reflected in the usage of the other sectors. That information is missing.

The finding must be revised to use the same time frame and to explicitly address water usage by the three referenced sectors in a context that reflects a demand within each sector. It also should address the significance or insignificance of non-residential, non-agricultural industrial uses.

Draft Finding: Reuse of water, recycling, groundwater management, storm-water capture, treatment and reuse of impaired waters, and sea water desalting are vital to improving the overall reliability of California's water

supplies, but are not likely to be a major factor for several decades or more.

The finding is internally inconsistent. It is not possible for the enumerated activities to be vital and at the same time not be a major factor in improving water supplies.

> Draft Finding: State Water Project long-term average water delivery reliability has declined substantially in the past seven years.

The decline in reliability is due to one factor, increasing demand for the environmental sector. There have been no major failures of either conveyance or storage facilities, nor has there been a significant change in rainfall; as noted on page 5-1, the total amount of precipitation has been constant for 100 years. Thus, declining water delivery reliability can be tied solely to environmental demand.

The finding is incomplete and must be revised to explicitly identify the cause of the decline in reliability, which is regulatory in nature and is the result of shifting water to the environmental sector.

- Draft Finding (1): Storage capacity must be increased and reservoir operations modified to improve water supply reliability.
- > Draft Finding (2): Conveyance must be changed and re-operated to improve water supply reliability.

These findings and accompanying verbiage are confusing. The competing demands of the three sectors, urban, agricultural and environmental, are acknowledged. However, there is no discussion as to the basis for decisions related to the modification of reservoir or conveyance operations, some of which are operated to avoid catastrophic flooding. In addition, the phrase "water supply reliability" is confusing; does it apply to all three sectors of the water economy? Further, does it mean all three sectors will achieve their demand, or that two of the three will get 150% of their current supply and the third sector will get 10%, but that the 10% will be delivered reliably?

The findings must be revised to give clearer context to the statements that reservoir and conveyance operations must be modified and how that will improve water supply reliability and to more clearly define what is meant by water supply reliability.

- > Draft Finding (1): Many local, regional, state, and federal agencies and organizations collect water data, but use differing methodologies and levels of detail, which severely limits the usefulness of the information.
- Draft Finding (2): To better understand and track the ways water is used in the urban, agricultural and environmental sectors, a rigorous, mandatory statewide data collection and analysis program is needed.

Rather than impose a new or different data collection and analysis program, the point here should be, that there is a need to (1) use the appropriate data in the appropriate context, and (2) develop a methodology by which all existing data protocols contribute to the overall picture of water use in California. The draft findings must be revised to reflect this.

Chapter 6 Comments

> Draft Finding: Habitat Extent and Complexity Have Been Substantially Eliminated in The Delta and Suisun Marsh.

The use of appropriate context is at issue in a number of the findings and we addressed it in our overall comment regarding the need to identify the points of comparison. This finding is unclear and overbroad as it fails to identify the period of comparison. As examples: Does the finding compare habitat extent and complexity to that existing before European settlement, or from the point of levee construction at the beginning of the twentieth century, or from the date of completion of the flood control facilities at Folsom, or Shasta, or Oroville?

Further, the finding states that habitat extent and complexity have been substantially eliminated, which implies that there is no habitat available for wildlife. However, it is clear from reading any literature on the Delta that it is home to literally hundreds of species. Indeed, the Draft Delta Plan includes the following statement:

The Sacramento-San Joaquin Delta is a unique natural resource of local, state, and national significance. At 1,300 square miles, the Delta is the largest estuary on the west coast of North and South America. Its rivers and labyrinths of sloughs and channels are home to 750 species of plants and wildlife as well as 55 species of fish, provide habitat for 700 native plant and animal species, and are part of the Pacific Flyway. The Delta contains more than 500,000 acres of agricultural land, with unique soils, and farmers who are creative and utilize innovative agriculture... (Public Resources Code section 32301(a)-(d)).

This quotation describes a Delta with meandering waterways that are complex, and teeming with species. Such information is at odds with the blanket statement that habitat extent and complexity have been substantially eliminated.

The text of the finding relies on the objectives in Sections 85022(d)(5), 85302(c)(3), and 85302(e)(1) of the California Water Code as the basis for the finding. However, these sections of the Water Code acknowledge and require protection of existing habitat as well as restoration and enhancement. Nowhere do the referenced code sections support the statement that habitat or habitat complexity have been eliminated.

The finding and accompanying text imply that native species populations are the target of this finding. Native populations evolved in the pre-European settlement flow regime characterized by spring flood flows and low summer and fall flows with significant salinity fluctuations. Does the Council contemplate restoring these conditions with the attendant economic and social disruptions and environmental consequences? The flow and salinity fluctuations will have economic and social consequences for communities in and around the Delta. These fluctuations will also affect non-native species which have become resident species and which, in some cases, play a significant part in the current cultural climate of California.

If the Council intends to revert to pre-European settlement conditions, the finding must be explicit. If some other condition is targeted, then the Council must be explicit in identifying that condition and the scientific, social and economic bases for the choice. As noted in our prefatory comments, any proposed habitat conditions which do not contemplate removal of all management within the Delta must be predicated on clear and explicit explanations and balancing of consequences and costs for the economic, social and environmental aspects of Delta management.

The finding must be revised to acknowledge that existing habitat must be protected, and to clarify the goals of any actions which affect existing habitat.

> Draft Finding: Even with Substantial Restoration Efforts, Some Native Species May Not Survive.

This finding fails to acknowledge that the ESA requires any actions taken in the Delta to protect individual listed species, even to the detriment of other protected and non-protected species. While the biological imperative to extinction may exist, the law does not recognize or allow for its operation. The text of the discussion must address this issue; failure to acknowledge or address it will invite litigation that will result in

eventual abandonment of any final Delta Plan, no matter how well supported scientifically and politically.

We also note that local extinctions of non-native species can result in federal actions under the ESA. The ESA protects species who are in threatened with extinction in all or a significant portion of their range whether or not those species are 'native' to that range. This language has been interpreted to protect even marginal populations at the very edge of a species' range and based solely on political jurisdiction.

The finding must be revised to acknowledge that if the Plan results in significant reductions of non-native species populations, those populations could be found to be threatened with extinction in a significant portion of their range, at which point the ESA would control the operation of the Plan.

Draft Finding: Restoring a Healthy Ecosystem May Require Developing a More Natural Salinity Regime in Parts of the Delta.

The term 'healthy ecosystem' is undefined. There is an existing ecosystem in the delta, and it is thriving. As noted by the California Legislature and this Draft, there are hundreds of species, some made up of millions of individuals, all thriving in the Delta. This existing ecosystem is important enough that the Legislature directed that it be protected. Clearly the term 'healthy ecosystem' is value laden, and in an ecosystem which is wholly managed, as is the Delta, the term 'healthy ecosystem' reflects a political decision regarding which species and habitats are more favored than others, since management decisions will shape the ecosystem which exists. The Draft Delta Plan explicitly acknowledges this in the finding that states: "The Delta Ecosystem is irreversibly changed." Using the term 'healthy ecosystem' implies that any ecosystem which results from the decisions of the Council would restore a naturally occurring configuration, which is only true if all management of water supply and flood control is abandoned.

The finding must replace the term 'healthy ecosystem', which is value laden and unclear in any way that could inform management decisions, with a more explicit term such as "the preferred replacement ecosystem configuration" which more appropriately identifies the basis and rationale for conditions which may require changes in the salinity regime.

Draft Finding: Current Instream Structures (e.g., Dams, Weirs, and Gates) Impair Local and Migratory Movement of Native Resident and Migratory Species in the Delta and Upstream Reaches. The text accompanying this finding is incomplete. It fails to acknowledge or discuss several facts.

- 1. For over 100 years, California has reared and planted salmonids and other fish to ensure healthy fish populations;
- 2. Each of the instream structures has associated fish hatcheries in operation and functioning to mitigate the loss or impairment of migration corridors;
- 3. Research has shown that in some areas 90% of the salmonids returning from the ocean are the product of hatcheries;
- 4. The California Department of Fish and Game("DFG") is reducing hatchery production by 20%, but has not estimated the consequences to the piscivorous ecosystem members;
- 5. The DFG and the FWS, in a joint EIR/EIS, have found hatcheries are detrimental to the environment.

No discussion of the effects of instream structures is complete without a corresponding examination of the mitigation afforded by the hatcheries associated with those structures, their historic contributions to the larger piscivorous ecosystem and the consequences of varying operational choices.

Draft Finding: Introduction of Exotic Plant and Animal Species Have Degraded the Quality of Habitat in the Delta.

This finding is misleading and use of the word degraded is pejorative. For example, some of the introduced species have reduced turbidity in the Delta, which may adversely affect Delta Smelt, but as an absolute measure of water quality is an improvement. It is more accurate to state that the introduction of non-native species has changed the quality of habitat in the Delta and that those changes have consequences for native species. Further, the finding provides no context for the time frame of the introductions. In the case of the Delta, the introduction of non-native species has been occurring for over 100 years. Finally, it is important to note that the federal ESA makes no distinctions between native and non-native species and that those species introduced to the Delta are afforded the same protections under the ESA if their populations are threatened with extinction in a significant portion of their range.

This reinforces our earlier comment that the Draft Delta Plan must explicitly define the parameters of protection as well as the priorities for protection and provide data and a transparent basis for applying those priorities.

The finding must be revised to clearly state that non-native species have been entering the Delta for well over 100 years, that they have irrevocably changed the ecosystem as a result, and that those changes have affected native species' ability to survive.

> Draft Finding: Entrainment at Water Diversions In and Upstream of the Delta Adversely Affects Native Aquatic Species.

This finding is misleading and should be removed as it relies on a biological opinion that is not valid and has been found to be arbitrary and capricious. There is no data or analysis that supports any finding that entrainment affects delta smelt abundance levels. In its 2008 delta smelt biological opinion, the FWS assumed such effects, and performed a post hoc analysis using an unproven hypothesis which was 'peer reviewed' by the authors of the hypothesis, who not surprisingly found the analysis convincing. However, a federal court found that the FWS acted in an arbitrary and capricious manner and remanded the biological opinion for revisions. The text includes quotes from the invalid biological opinion which have no place in the Council's Draft Delta Plan. That biological opinion was not based on the best scientific data available.

As noted earlier, we urge the Council to abandon the tired assumptions that have been the basis for government agency analyses and expenditures since listing of the delta smelt. The people of California will be best served by an independent review of the data (which must form the basis of any plan that hopes to satisfy the requirements of the ESA) and the Council's reliance on transparent analyses that comply with the OMB guidelines defining best available scientific information.

This finding must be removed as it is unsupported.

Draft Finding: Current Flow Regimes Harm Native Species and Encourage Non-native Species Through Their Effects on Turbidity, Salinity, Aquatic Plant Communities, and Nutrients.

There is no factual basis for this finding. Over half the contributors to the Environmental Flows Group of Experts were also authors or contributors to the invalidated biological opinion. Further, as courtroom testimony demonstrated repeatedly, the best available science consists of modeling the species' life cycle. Such modeling has yet to be accomplished despite the fact that CALFED spent almost \$300 million on science related to the Delta. The statements in the biological opinion and in the findings are based on no more than speculation and surmise.

There is no question that flow amounts, timing, and water quality affect all the species in the Delta. However, there is no basis for the broad and definitive statement that current flow regimes harm native species and encourage non-native species. In addition, the finding fails to acknowledge that some species out-compete others. To oversimplify the complex interactions among species adaptability, competition within the Delta, flow, temperature, food supply and other ecosystem conditions is irresponsible. Such an approach fails to provide for thoughtful discussion of the very real consequences, tradeoffs and costs of any of a number of approaches which may be considered. The finding must be revised to reflect a more balanced approach that is far more consistent with the reality of ecosystems.

The finding should acknowledge that flow regimes have differing effects on species and that the Delta Plan will identify flows to meet the adopted priorities of the Plan.

Draft Finding: Climate Change Has Altered and Will Continue to Alter Flow Regimes.

The Draft Delta Plan Chapter 5 states that the total amount of precipitation has been constant for 100 years, however, the supporting text for this finding ignores that statement. While admitting that geologically cyclical climate changes are a natural part of California's weather, the finding relies on near term minor fluctuations to support a presumed change in climate cycles.

The existing water management system is designed to moderate the cyclical nature of California's climate. Large reservoirs provide for flood control during high rainfall and melting snow pack and for stored water supplies for use during dry periods. This has led to summertime flows down the American River in excess of 2,000cfs which would not have occurred absent the water storage facilities. It has also led to nearly year-round salmon runs. However, in recent times, the basis for the operation and priorities of these water management facilities has been questioned. Presumably, the Council will examine whether flood control, irrigation and other benefits of the existing system are outweighed by managing for a more 'natural' flow regime, with its attendant flooding and drought.

If the Council believes the effects of the cyclical nature of California's climate should be moderated through management of water supplies, the finding needs to make that explicit statement rather than including a statement that is simply a truism.

This finding should be removed as there is no scientific basis for an assertion that California's naturally occurring climate cycles have changed.

Chapter 8 Comments

Draft Finding: Emergency preparedness is the first line of flood defense and local agencies are the primary responsible agents.

Emergency preparedness is indeed the first line of defense once catastrophe has struck, but implementation of emergency plans is the last line of defense in the larger context of flood defense and should rarely be necessary if prudent flood prevention actions have been taken. The finding thus misrepresents what actions are available to prevent flooding and avoid loss of life and property by giving it a post-disaster focus. The first line of defense includes the state and federal water storage systems, built to retain flood waters and release them at a later date at coordinated and safe flow levels. The first line of defense also includes the levee system, built to hold back flood waters that cannot be stored for safe release later and to help contain rivers swollen with precipitation. In reality, the last line of defense is emergency preparedness, which is implemented when all other defenses have failed.

The finding fails to accurately portray the flood defense system. It further fails to identify avoidable threats to that system. Specifically, there are currently threats to levee and riverbank maintenance that are regulatory in nature:

- 1. Regulations designed to preserve riparian habitat have resulted in decreased flow capacities for rivers running through major cities and have thus increased the risk of catastrophic flooding by reducing flood flow capacities;
- 2. By limiting the type of levee repairs that can be undertaken and limiting the time available to complete such repairs, regulations designed to preserve riparian ecosystems have adversely affected the ability to ensure the integrity of the levee structures by limiting the ability to control rodent burrows and other naturally occurring degradation that can compromise levee safety and result in failure during high or emergency flood flows.

The finding must be changed to reflect the flood defense actions available (storage and levee maintenance) with emergency preparedness properly distinguished from implementation of flood-fighting measures, which should be accurately identified as the last resort after all other preventive measures have been put in place.

Draft Finding: Climate change threatens important infrastructure in the Delta.

This statement is unclear and misleading. The Draft Delta Plan Chapter 5 states that the total amount of precipitation has been constant for 100 years. How then, is California's infrastructure more vulnerable today than in the past? No evidence is produced to substantiate the claim that climate change is more or less significant than in the past.

No information is provided to substantiate the existence of other physical or geographical factors that increase the vulnerability of the infrastructure. While admitting that geologically cyclical climate changes are a natural part of California's weather, the supporting text for this finding ignores that statement. Instead, the finding relies on near term minor fluctuations to support a presumed change in climate cycles. However, no support for the notion that California's naturally occurring climate cycles have changed in some meaningful way is provided.

The existing water management system is designed to moderate the cyclical nature of California's climate. Large dams provide for flood control during high rainfall and periods of snow melt and for water supplies during dry periods. This has led to summertime flows down the American River in excess of 2,000cfs, which would not have occurred absent the water storage facilities. It has also led to nearly year-round salmon runs. However, in recent times, the basis for the operation and priorities of these water management facilities has been questioned.

Presumably, the Council will examine whether flood control, residential, municipal and industrial, and irrigation and other benefits of the existing system are outweighed by managing for a more 'natural' flow regime, with its attendant flooding and droughts.

Accordingly, the finding should be removed as there is no data which supports it.

Chapter 9 Comments

> Draft Finding: Continued pressure exists to develop lands within the Delta.

This finding unjustifiably relies on outdated information (the 2000 census). Information from the 2010 census should be the basis of this finding. Further, the supporting documentation notes that pressure to develop within the Delta is potential rather than continuing, and the identified development is on the periphery and within the spheres of influence of existing cities.

The finding should be revised to reflect the speculative nature of the anticipated development as well as more recent census information.

- Draft Finding (1): Cities and counties are primarily responsible for land use decisions affecting the Delta.
- > Draft Finding (2): Local land use decisions upstream of the Delta and Suisun Marsh impact the Delta.
- > Draft Finding (3): The complex system of Delta governance complicates coordinated and integrated planning efforts in the Delta.
- > Draft Finding (4): Comprehensive regional planning based on coordinated local efforts can best achieve the legislative objectives of the Delta Plan.

These Findings are incomplete and inaccurate. While the first line of land use decisions within the Delta is governed by cities and counties, precisely because of the area's overarching importance, land use decisions within the Delta are also governed by myriad state and federal agencies which may override local decisions. These state and federal agencies include the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, as well as the federal Natural Resources Conservation Service, the California Department of Water Resources, the California Department of Fish and Game, the State Reclamation Board, local reclamation boards, the State Water Resources Control Board, and the Regional Water Quality Control Board.

Land use decisions within the Delta are governed by overlapping regulatory authorities and landowners have little respite from the often competing demands of these agencies. The demands of the agencies also offer landowners little by way of consistency and no recourse where there is disagreement. These overlapping authorities are complicated by citizen suit provisions which are used primarily by non-owner 'stakeholders', which can effectively remove control of Delta lands from their legal owners and place it in a court's or an agency's hands.

The unique culture and characteristics of the Delta in large part rely on a robust farming economy, which ensures the continued survival of the Delta's unique characteristics. The existing legal authorities exercised aggressively by their implementing agencies and potentially by this Plan directly affect the economic viability of the lands within the Delta and thus the likelihood of preserving the unique culture of the Delta.

The finding must be revised to reflect the multiple overlapping authorities and the potential for misuse or overzealous application of those authorities with respect to land and water use and their potential for destroying the unique culture of the Delta, which the Legislature has charged the Council with preserving.

Draft Finding: Urbanization and loss of agricultural lands have occurred under local planning policies that are not consistent throughout the Delta.

The Draft Delta Plan states that in 25 years, 6% of delta farm land has been converted. This has occurred in the context of major population growth. The information included in the Draft does not support a conclusion that rampant development and pressure to develop exists in the Delta.

This finding should be removed.

> Draft Finding: Risks to the Delta must be reduced to allow for its evolution, protection, and enhancement.

This Finding is so broad as to be meaningless. While the finding acknowledges the need for the Delta to evolve, such evolution necessarily brings change, both major and minor. Often, evolution results from ecosystems responding to catastrophes that have occurred. However, our laws and regulations, including the controls contemplated by the Council, are designed to identify a snapshot in time, and force ecosystems and the species which occupy them to remain static in terms of their make-up and populations. Hence CALFED, the DFG, the Bay Delta Planning Commission, the FWS, and even this Council strive to regulate and require actions to alter the existing ecosystem in a manner designed to achieve individual goals (such as restoration of delta smelt populations to some former level despite evolution within their habitat which is the Delta).

Even if these agencies did not strive to achieve such a goal, environmental statutes allow individuals with specific agendas to control management and force manipulation of the Delta ecosystem to achieve their goals, rather than let the ecosystem respond to the ever-changing world around it.

The finding must be revised to accept the fact that the Delta will continue to evolve, whether our laws are consistent with that or not, and that the Plan will be designed to support and protect certain identified priorities within that context.

> Draft Finding: Risk Increases as the Delta's Population Grows.

This finding is too broad. It appears from the text supporting the finding that the focus is actually flood risk, rather than risk of an unknown and undefined type and proportion.

The finding mentions limiting land use and development in deep floodplains and below sea level. What precisely is contemplated by this statement? Does the Council intend to require changes in existing uses in the Delta? If so, that is inconsistent with the Legislature's stricture to preserve the existing Delta. Does the Council contemplate limiting landowners' options with respect to land uses within the Delta? If so, that brings benefits, presumably to the larger statewide population, at a very focused cost to the landowners in the Delta.

This Finding should be removed as it is overbroad and unclear.

> Draft Finding: Levees protecting urban and rural lands are, and need to remain, different.

This finding is unclear. We recognize that existing levees protecting farm lands are often lower than levees protecting urban areas; this results in farm land flooding before damage occurs to more costly urban infrastructure. However, this finding appears to support lower maintenance standards as well as deliberate flooding of farm land in a departure from past management.

If this is the case, the finding needs to state that clearly. Further, the finding must identify the costs associated with more frequent flooding of farmland, and the potential loss of life associated with more frequent levee failures that inevitably would result from lower maintenance standards.

Draft Finding: Land Use Decisions must discourage development in flood prone areas.

This finding is unclear at several levels. First, as the Draft Plan already notes, local land use decisions are not uniform, not local and are governed by a series of different agencies with differing authorities. Does the Council contemplate limiting development in floodplains beyond existing limitations? Does the Council contemplate withholding authority to rebuild damaged property that lies within floodplains? What does the Council define as development? Virtually any human activity can be defined as development in a chosen context.

The finding must be clarified to identify the precise intent of the term.

We appreciate the opportunity to present these comments and look forward to working with you on corrections and improvements to the Delta Plan. Please feel free to contact us if you have any questions.

Sincerely,

Leah R. Zabel

Sr. Policy Analyst

The Council For Endangered Species Act

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Reliability